

and invisible to the naked eye. I communicated this to Mr. H. S. Ferguson, the Director of the Museum, and he informed Mr. G. A. Boulenger, who, while verifying and confirming the faintly grooved posterior maxillary teeth in the genus *Naia*, a discovery * made by him since the publication of the 'Fauna of British India,' does not seem to have been aware of the more or less grooved palatine series of teeth as well. At his instance I was led to a series of observations on the teeth of various poisonous Colubrine snakes of the subfamily Elapinae so far as they are represented in Travancore, and, in addition, to the grooved functional and reserve fangs.

	Posterior maxillary.	Palatine.	Pterygoid.
<i>Naia bungarus</i> has	3	17	12
— <i>tripudians</i> has	1	5	14
<i>Bungarus cæruleus</i> has	3	10	13

In the above not only are the posterior maxillary and palatine teeth more or less grooved, but all the pterygoid and mandibular series are likewise marked with faintly depressed lines resembling grooves. Furthermore, in connexion with an examination of two skulls of *Hemibungarus nigrescens*, a small poisonous Colubrine snake fairly common on the hills, I found the palatine teeth indistinctly grooved.

Government Museum, Trevandrum,
October 26, 1903.

Obituary Notice: DR. WILLIAM FRANCIS.

DR. WILLIAM FRANCIS was born in London on the 16th of February, 1817. He was educated at University College School and St. Omer. He left St. Omer in 1834 and proceeded to Crefelt, but in the autumn of the same year went to Gera, where he remained for about two years. In 1836 he returned to England and spent a year at the London University (University College), afterwards devoting some time to learning the printing business under Mr. Richard Taylor, to whom he had been apprenticed some time previously. He then went to Berlin, and thence to Giessen, where he studied under Liebig, and did much original work, chiefly on the salts of molybdenum. He took his degree of Doctor of Philosophy at Giessen in 1842.

He early developed a taste for Natural History, and during his stay at Gera he devoted much of his time to entomological study and pursuits. While in England, in 1837, "fresh from the teachings of Ehrenberg, and profoundly influenced by the spirit of scientific research which then, as now, prevailed in Germany," he "suggested to Mr. Richard Taylor the establishment of a journal in which, while its pages were freely open to the original contri-

* 'Catalogue of Snakes,' iii. p. 373 (1896).

butions of English naturalists, special attention should be paid to the researches of Continental observers; and the result was the starting of the 'Annals of Natural History,' with which, subsequently, the well-known 'Magazine of Natural History' of Loudon and Charlesworth was amalgamated." His name first appears on the wrapper as co-editor in 1859. As Editor of the 'Annals' he became acquainted with most of the leading naturalists, and made many life-long friends, his indebtedness to whom he warmly acknowledges in the Preface to the Sixth Series.

While in Berlin and Giessen, Dr. Francis, in conjunction with his friend and fellow-student Henry Croft, forwarded every month a series of reports to the 'Philosophical Magazine' on the progress of chemical science on the Continent; but the space available in that Journal being limited, they, on their return to England, started the 'Chemical Gazette' in 1842. Croft was compelled to relinquish the editorship before the fourth number appeared, being appointed Professor of Chemistry at King's College, Toronto; and the 'Gazette' was carried on by Dr. Francis alone until 1859, when the pressure of other work compelled him to relinquish the task, and the 'Gazette' was incorporated with the then newly founded 'Chemical News.'

In addition to furnishing translations of foreign scientific papers to the 'Philosophical Magazine,' he also translated many papers for Taylor's 'Scientific Memoirs,' in the conducting of which, moreover, he had a very large share, although his name did not appear on the titlepage. He also translated Beckmann's 'History of Inventions' for Bohn's Scientific Series.

In 1851 his services to the 'Philosophical Magazine' over many years, both in furnishing translations and in conducting the Journal, were acknowledged by the appearance of his name on the wrapper as co-editor, where it remained until his death. During the whole period of fifty-three years he took an active part in the management of the Magazine. His acquaintance and, in many cases, warm personal friendship with scientific men both in Great Britain and on the Continent, his sound judgment, and tact made his services in this capacity invaluable.

In 1841 he was elected Associate of the Chemical Society, becoming a Fellow in the following year. He was also a Fellow of the Linnean Society (1844), of the Royal Astronomical (1851), of the Geological (1859), and of the Physical (1876).

In 1852 he joined Mr. Richard Taylor as partner in the firm of Taylor and Francis, printers and publishers. He was one of the oldest members of the Stationers' Company, having taken the Livery in 1841.

In 1862 he married Isabella Gray, daughter of Mr. Taunton, M.R.C.S., of Hatton Garden, but became a widower in 1899. For some few years previous to his marriage Dr. Francis had lived at Richmond, and for the rest of his life continued to reside there—for the last thirty-one years at the Manor House, where he died on the 19th of January last.